

Dear Colleague

We are very pleased to invite you to participate in this event at the newly opened Laser Engineering and Manufacturing Research Centre (LEMRC) within the University of Chester's Thornton Science Park. Laser Surface Engineering covers a wide range of applications where industrial lasers are used to change the mechanical, electrical or magnetic properties of a surface. Industries which are applying this technology include the automotive, aerospace, energy, military and medical device manufacturing. As well as hearing some of the research being carried out in this field, you will have the opportunity to hear and see some of the latest technology applied by laser manufacturers and a range of innovative applications identified by end users which are already used or soon to be exploited.

At the end of the afternoon there will be an opportunity to tour our facilities.

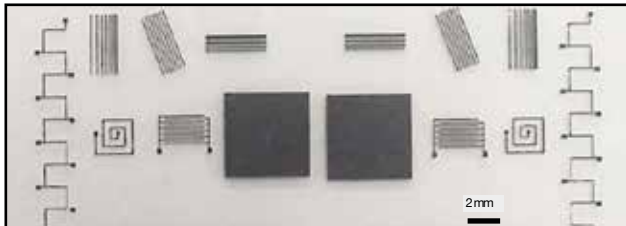
**Jonathan Lawrence**  
Workshop Chair



**Professor Jonathan Lawrence** is Director of the (LEMRC) based in the Faculty of Science & Engineering at the University of Chester. He has been involved in laser material processing research for 20 years. Professor Lawrence is the Editor-in-Chief of the international journal Lasers in Engineering, and has published 7 books including the title "Laser Surface Engineering: Research and Applications" in 2014 with Dr David Waugh.

### Networking Opportunities

One of the key features of an AILU workshop is the opportunity it provides for delegates to meet with the presenters and with one another: a comfortable environment, generous lunch and refreshment breaks, and a table top exhibition. It presents a valuable learning and networking opportunity and a chance to generate new ideas and valuable contacts.



Courtesy: Oxford Lasers



#### Venue:

Thornton Science Park  
University of Chester  
Pool Lane, Ince  
Cheshire  
**CH2 4NU**  
[www.thorntonsciencepark.co.uk](http://www.thorntonsciencepark.co.uk)

#### Security

**Thornton Science Park is a secure site.** Your name will be passed to Security at the entrance to the site (the Gatehouse) to allow access. You will be directed to Car Park B. A site plan is available on the AILU website (see the bottom of the page for web address).

#### Delegates

On arrival you will receive a delegate pack containing a name badge and essential notes for the day. The pack will include information for downloading PDFs of the presentations, which will be made available on the AILU website after the event. A buffet lunch (including vegetarian options) and refreshments will be provided. Please advise us of any special dietary needs.

#### Exhibitors

The exhibition will be situated in a dedicated canteen area where refreshments and lunch will be served (see the AILU webpage for a floor plan). Exhibitors can temporarily park outside the canteen to unload. Access will be available from 07:45 on the day. The exhibition will start at delegate registration (08:45) and end after the afternoon refreshment break (15:40). A table (approx 1.8 m x 0.75 m) will be provided free. Backboards and table cloths are **not** provided. Feel free to bring a pop-up banner or your own stand. Mains power can be provided to all tables.

#### Registration (delegates and exhibitors)

To register for the event please complete the registration form on this flyer or, if you are a member of AILU or have attended workshops previously, phone or email the AILU office and we will register you and send an invoice later. Alternatively, you can register and pay online (see web link below for details).

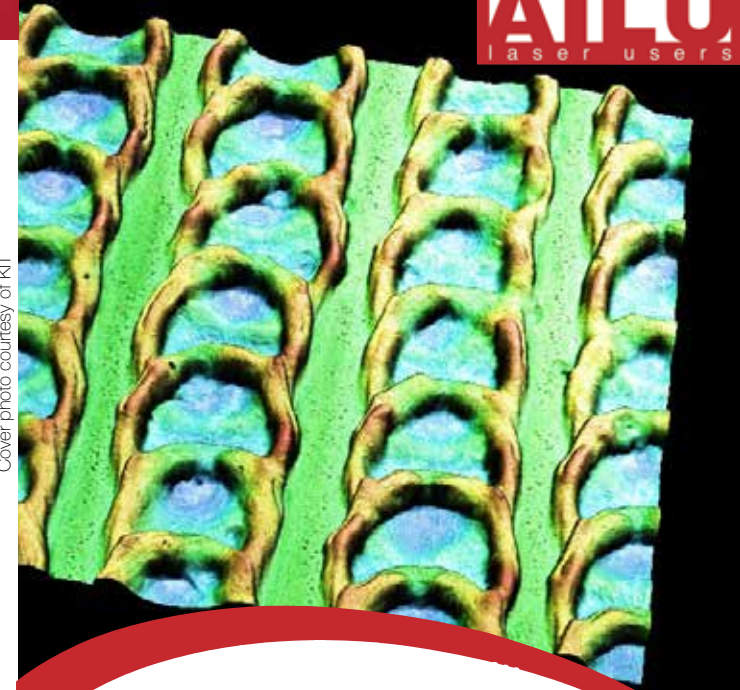
#### Travel & Accommodation

Please see the Events Page on the AILU website.

**Contact AILU:** 01235 539595 or [info@ailu.org.uk](mailto:info@ailu.org.uk)

**Website:** [http://www.ailu.org.uk/laser\\_technology/events.html](http://www.ailu.org.uk/laser_technology/events.html)

Cover photo courtesy of KIT

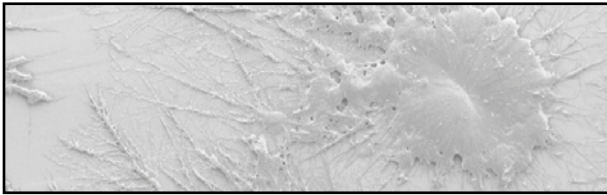


## Laser Surface Engineering Presentations, exhibition & tour

**Wednesday 2nd December 2015**  
**Laser Engineering and Manufacturing Research Centre (LEMRC)**  
**University of Chester Thornton Science Park**

### Supported by:





Courtesy: University of Chester

08:45 - 09:30 Registration and refreshments

09:30 - 11:10 **Session 1**

**Welcome**

Jonathan Lawrence University of Chester

**Excimer laser surface modification**

Zhu Liu University of Manchester

**Surface texturing by ultrashort laser: a roadmap from laboratory to industry**

Girolamo Mincuzzi ALPhANOV

**Keynote presentation**

**Bio-inspired scale-like surfaces created by laser texturing and their tribology**

Christian Greiner KIT

**New surfaces for new applications**

Martin Sharp Liverpool John Moores University

11:10 - 11:40 Refreshment break & **EXHIBITION**

11:40 - 12:40 **Session 2**

**Laser peening of ballistic armour plates**

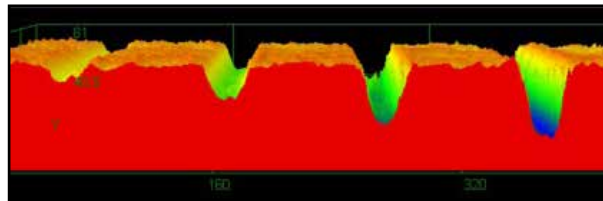
Pratik Shukla University of Chester

**Laser surface engineering: a journey from implants to platforms**

David Waugh University of Chester

**LIFT printing and laser sintering of wet inks for flexible electronics**

Emeric Biver Oxford Lasers



Courtesy: Fianium

12:40 - 13:40 Lunch & **EXHIBITION**

13:40 - 15:10 **Session 3**

**Keynote presentation**

**Surface engineering in the photovoltaic industry**

Chris Moore Dyesol

**Surface engineering applications using short pulse lasers**

Paul Fitzsimons Fianium

**Surface engineering applications for high power diode lasers**

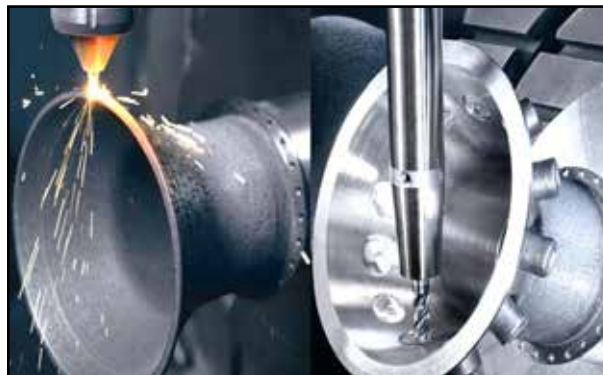
Mark Daichendt Laserline

**Surface engineering applications using fibre lasers**

Mark Thompson IPG Photonics

15:10 - 15:40 Refreshment break

15:40 - 16:20 **TOUR**  
Laser Engineering and Manufacturing Research Centre



Courtesy: Laserline

**Registration**

Name: .....  
 Title & initials First name Surname  
 Position: .....  
 Organisation: .....  
 Address: .....  
 Postcode: .....  
 Tel: ..... Fax: .....  
 E-mail: .....

**Payment options**

- Please invoice me
- I wish to pay in advance by Visa/Mastercard (billing in GBP):  
 Name on Card .....  
 Number ..... Exp \_/ \_  
 Please debit my account

**Delegate/exhibitor options**

- Delegate only (prices exclude VAT @ 20%)**
  - £160.00 Member of AILU or supporting organisation
  - £195.00 Non-member
  - £65.00 Unemployed or retired
  - £45.00 Full time student
- Exhibitor only (prices exclude VAT @ 20%)**
  - £155.00 Member of AILU or supporting organisation
  - £195.00 Non member
- I wish to register as a delegate AND exhibitor.**  
 Please give me a £50 plus VAT discount on the total fee.

Signed: ..... Date: .....

Cancellations will be accepted up to 1 week before the event otherwise the full fee may be charged.

Please scan and return completed form to [liz@ailu.org.uk](mailto:liz@ailu.org.uk) or mail to AILU, 100 Ock Street, Abingdon, Oxon OX14 5DH, UK